

Remarks

Claims 1-13, 15, and 17-23 are in the application. Claims 1 and 13 are in independent form. Reconsideration is requested.

The drawings are objected to under 37 CFR 1.84(p)(5) for failing to include reference numerals for "virtual machine architecture 20" and "clients 12." Applicants submit herewith a corrected Fig. 1 in which the reference numeral 10 in the original Fig. 1 is corrected to indicate reference numeral 20. Applicant notes that in the brief description of the drawing Fig. 1 is described as showing "a prior art virtual machine architecture." Paragraph [0015] of the application has been amended to delete reference numeral 12 and to indicate that the recited clients are "not shown." In addition, paragraph [0023] has been amended to delete an incorrect use of reference numeral 10 and to refer instead to "a virtual machine server." Accordingly, applicant requests that this objection be withdrawn.

Applicant submits herewith a corrected Fig. 2 in which the blocks for execution models 54A-54C are corrected to remove an erroneous break in the text of the word "execution."

Claims 7, 8, 18, and 19 are rejected under 35 USC 112, second paragraph, for indefiniteness. The Examiner objects to the use of the term "low" in claims 7 and 18 and the term "high" in claims 8 and 19. Claims 7 and 18 have been amended to delete reference to "low" free space and instead recite that the shared object memory manager compacts the shared object memory when remaining free space satisfies a remaining free space criterion. It will be appreciated that a low level of remaining free space is a "remaining free space criterion" and is therefore supported by the application. Moreover, the actual "low" level is arbitrary, as is discernible by one of ordinary skill in the art, but serves as a threshold for compacting the shared object memory.

Claims 8 and 19 have been amended to recite that shared object memory manager compacts the shared object memory when the amount of space reclaimed from objects that were garbage collected satisfies a reclaimed space

criterion. It will be appreciated that a high level of space reclaimed from objects that were garbage collected is a “reclaimed space criterion” and is therefore supported by the application. Moreover, the actual “high” level is arbitrary, as is discernible by one of ordinary skill in the art, but serves as a threshold for compacting the shared object memory. Applicants request, therefore, that the rejections of claims 7, 8, 18, and 19 be withdrawn.

Claims 1-4, 6-15, and 17-23 are rejected under 35 USC 102(b) for anticipation by “Gemfire: Operating at the Speed of Memory, Technical White Paper” (referred to as “Gemfire”). Claims 5 and 16 are rejected under 35 USC 103(a) for obviousness over Gemfire in view of Official Notice. Applicant responds as follows.

Independent claim 1 recites that the shared object memory does not include an execution model and is distinct from the process memories of the object application processes. The Gemfire reference provides no teaching or suggestion that the “shared memory” described in the Gemfire reference does not include an execution model. Applicant submits, therefore, that the rejection is improper and should be withdrawn because the reference does not teach each and every feature recited in claim 1.

Applicants submit that claims 2-12 are allowable as depending from an allowable base claim. In addition, claims 5, 7, and 8 are further allowable for the following reasons.

In the rejection of claim 5, the Examiner states that the Gemfire reference inherently discloses the recited data structure. The Examiner notes that the Gemfire reference does not teach an ObjectID field that provides a reference for each object in an object table that includes a memory location pointer indicating a location where the object is located in the shared object memory. The Examiner states, however, that reference to a table containing a memory location pointer is well known in the art.

Applicant notes that a reference “inherently” discloses a claimed feature only if the feature is necessarily present in the reference. MPEP 2112, citing *In*

*re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Applicants submit that the recited ObjectID field is not a necessary feature of the system described in the Gemfire reference. Moreover, the Examiner has made no showing that the recited ObjectID field is a necessary feature of the system described in the Gemfire reference. Applicant submits, therefore, that the rejection of claim 5 is improper and should be withdrawn.

In the rejection of claims 7 and 8, the Examiner cites page 6, section 5.6 of the Gemfire reference as disclosing compaction of the shared object memory. However, that the cited passage describes garbage collection and defragmentation, not compaction of the shared object memory. Applicant submits, therefore, that the cited reference does not teach or suggest compaction of the shared object memory as recited in claims 7 and 8 and that the claims are therefore allowable.

Independent claim 13 has been amended to include the subject matter of claims 14 and 16, which have been cancelled. Claim 15 has been amended to depend from claim 13. Applicant submits that claim 13 is patentably distinct from the cited art for the following reasons.

Amended claim 13 recites:

software for creating software objects in the shared object memory and listing the objects in an object namespace included in the shared object memory, the object namespace having a data structure with a field ObjectName and a field ObjectID, in which the ObjectName field lists a name by which each object is accessed by an application process and the ObjectID field provides a reference for each object in an object table that includes a memory location pointer indicating a location where the object is located in the shared object memory

In the rejection of claim 16, the Examiner states that the Gemfire reference inherently discloses the recited data structure. The Examiner notes that the Gemfire reference does not teach an ObjectID field that provides a reference for each object in an object table that includes a memory location pointer indicating a location where the object is located in the shared object memory. The Examiner

states, however, that reference to a table containing a memory location pointer is well known in the art.

Applicant notes that a reference "inherently" discloses a claimed feature only if the feature is necessarily present in the reference. MPEP 2112, citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Applicants submit that the recited ObjectID field is not a necessary feature of the system described in the Gemfire reference. Moreover, the Examiner has made no showing that the recited ObjectID field is a necessary feature of the system described in the Gemfire reference. Applicant submits, therefore, that the rejection of claims 16, as incorporated into claim 13, is improper and should be withdrawn.

Applicants submit that claims 15, and 17-23 are allowable as depending from an allowable base claim. In addition, claims 18 and 19 are further allowable for the following reasons.

In the rejection of claims 18 and 19, the Examiner cites page 6, section 5.6 of the Gemfire reference as disclosing compaction of the shared object memory. However, that the cited passage describes garbage collection and defragmentation, not compaction of the shared object memory. Applicant submits, therefore, that the cited reference does not teach or suggest compaction of the shared object memory as recited in claims 18 and 19 and that the claims are therefore allowable.

Applicant believes the application is in condition for allowance and respectfully requests the same.

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Respectfully Submitted,

  
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